

FIG. 1

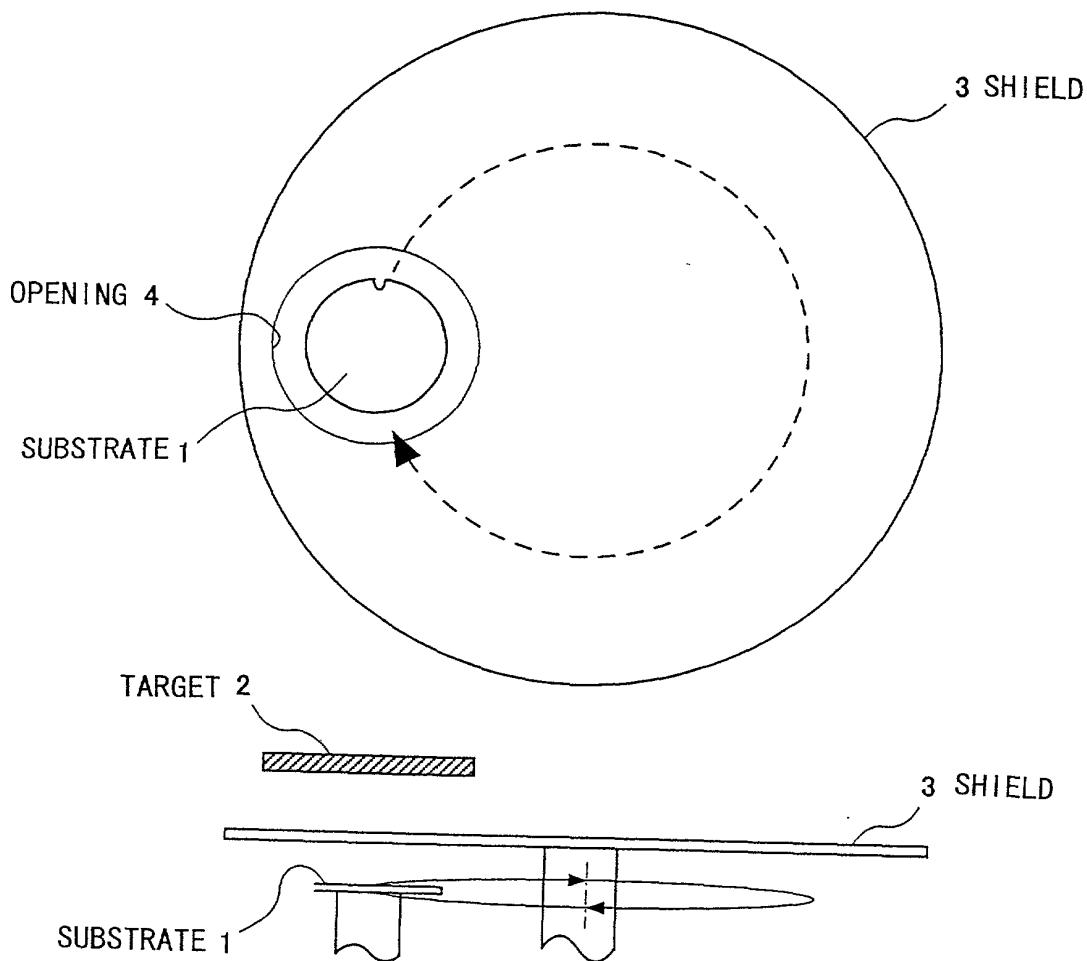


FIG. 2

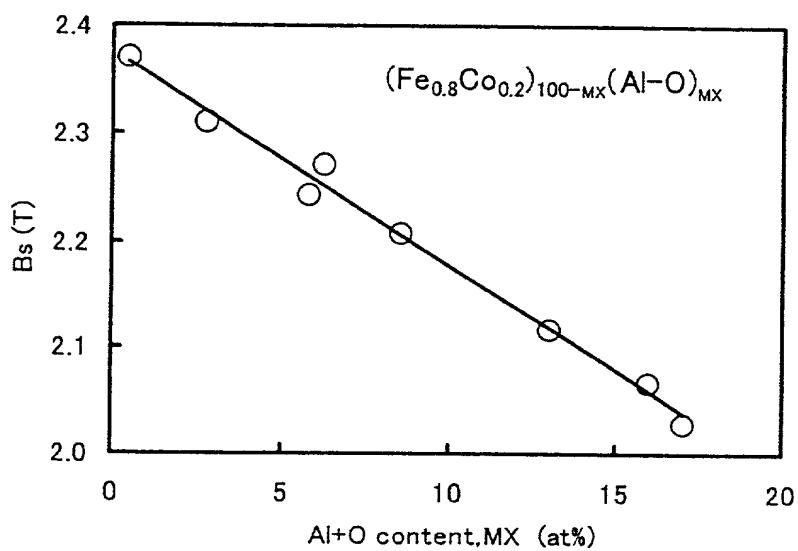


FIG. 3

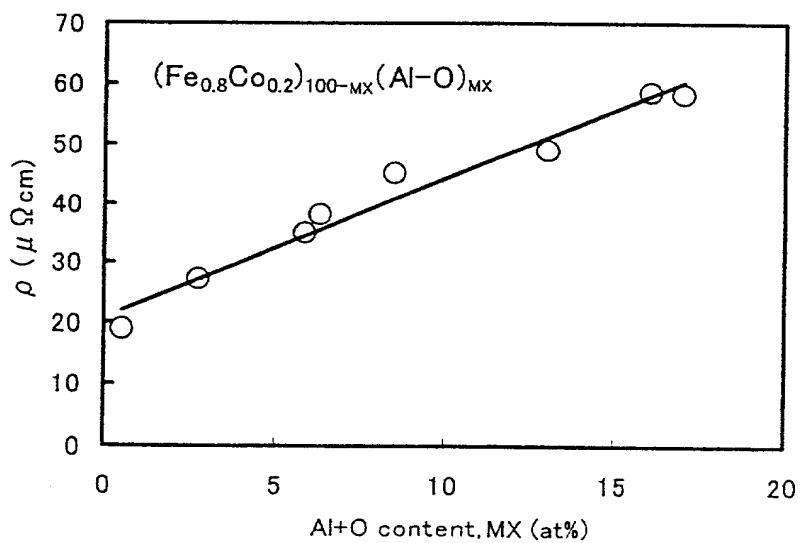


FIG. 4

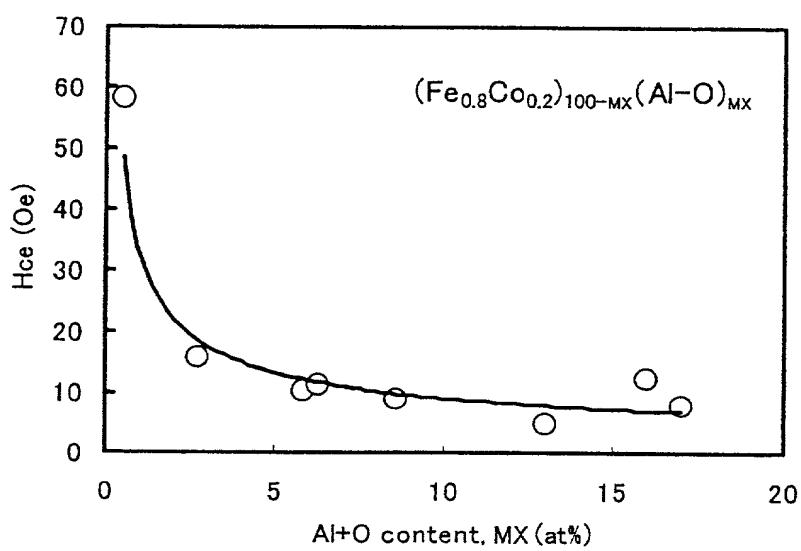


FIG. 5A

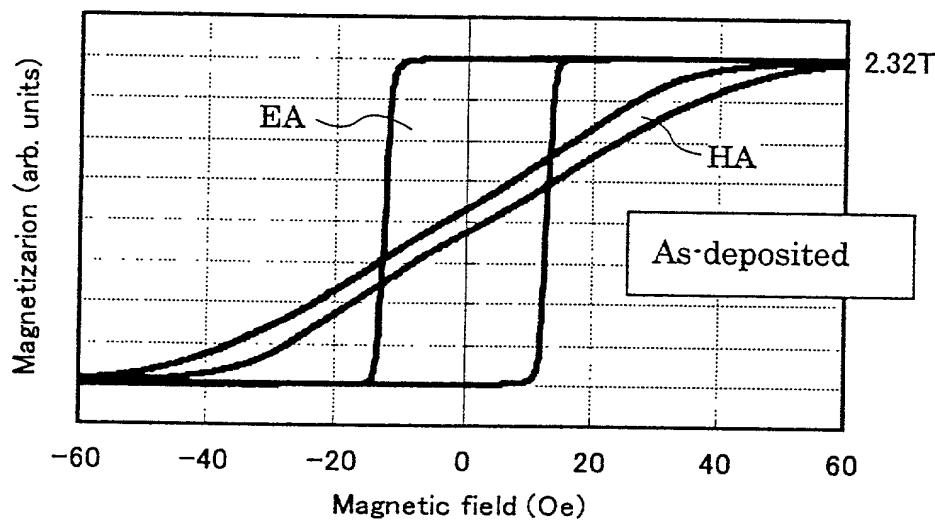


FIG. 5B

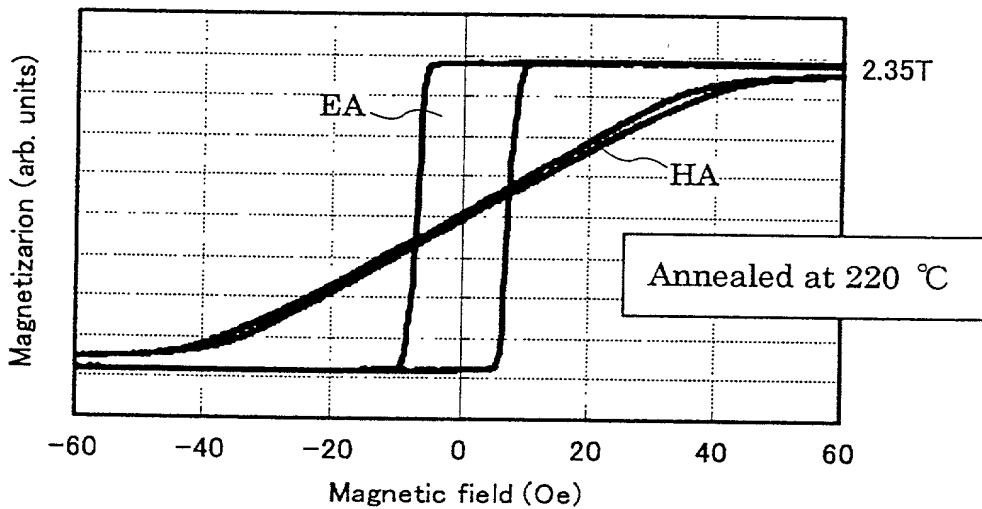


FIG. 6

	Film structure	H _c (Oe)
①	(Fe77.7Co19.5Al0.6O2.2) 0.5 μ m	As-deposited 15
②	"	Annealed at 220°C 7
③	(Fe77.7Co19.5Al0.6O2.2) 0.5 μ m / (Ni50Fe50) 1.6 μ m	As-deposited 4
④	"	Annealed at 220°C 2
⑤	(Ni50Fe50) 3nm / (Fe77.7Co19.5Al0.6O2.2) 0.5 μ m	As-deposited 10
⑥	(Ni80Fe20) 3nm / (Fe77.7Co19.5Al0.6O2.2) 0.5 μ m	As-deposited 8
⑦	(Ni80Fe20) 3nm / (Fe77.7Co19.5Al0.6O2.2) 0.5 μ m / (Ni50Fe50) 1.6 μ m	As-deposited 1

FIG. 7

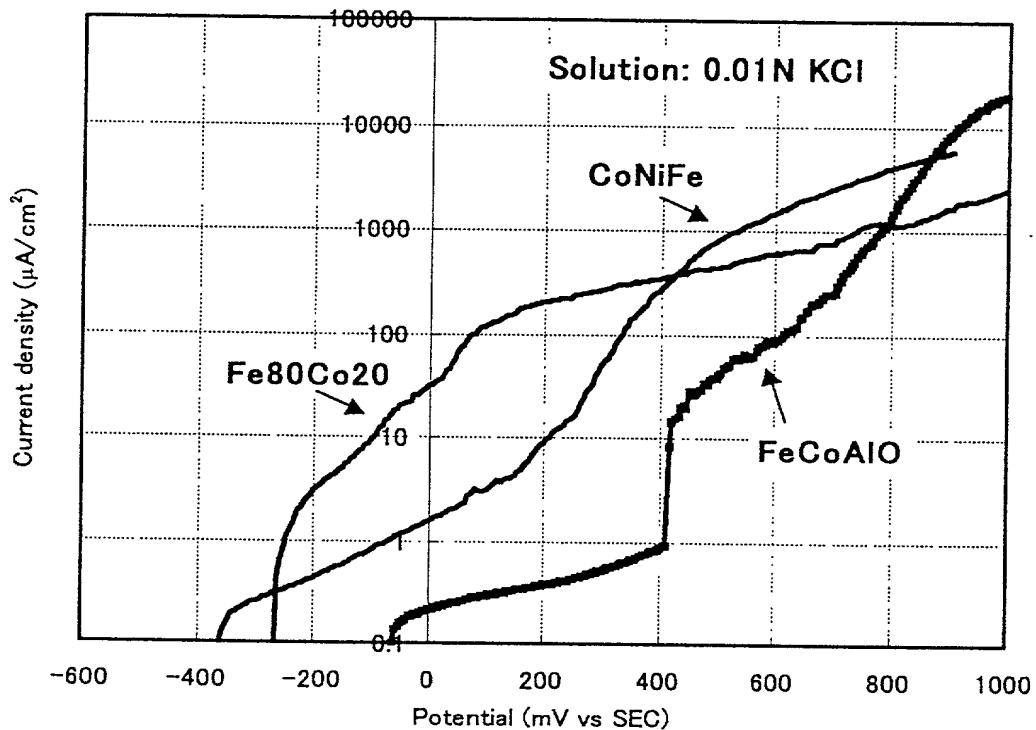


FIG. 8

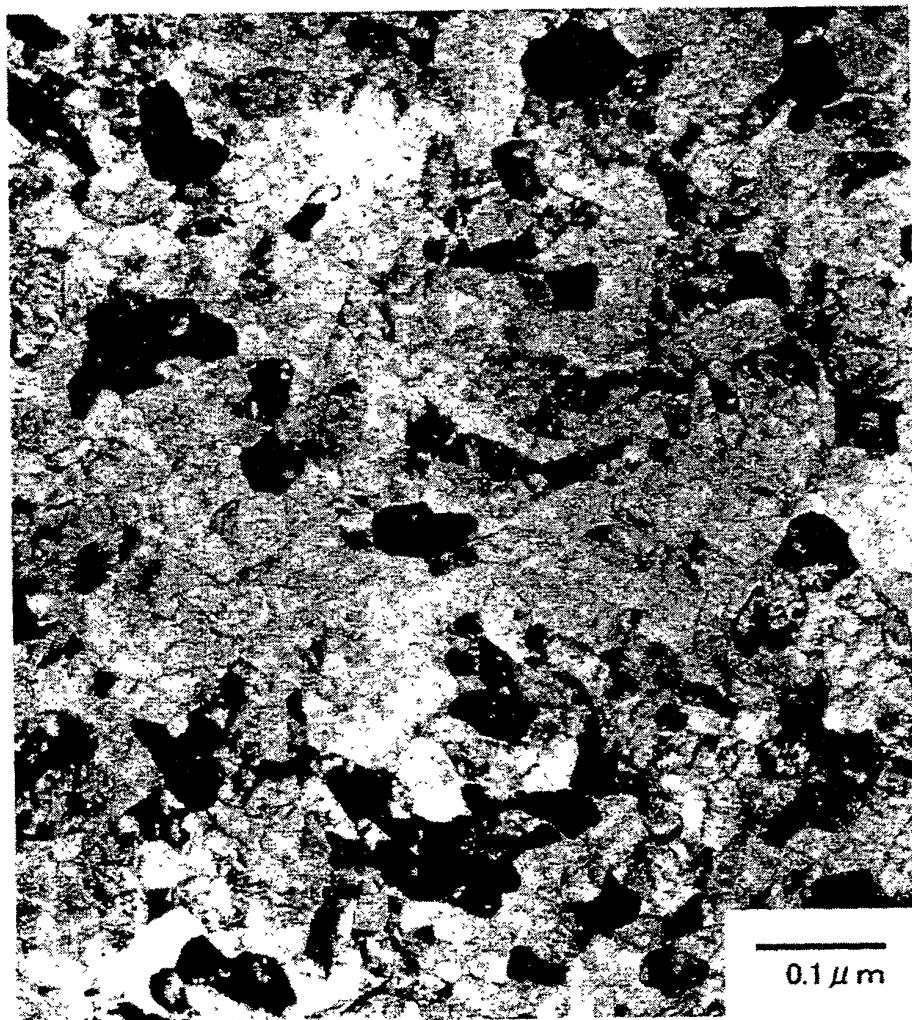


FIG. 9A

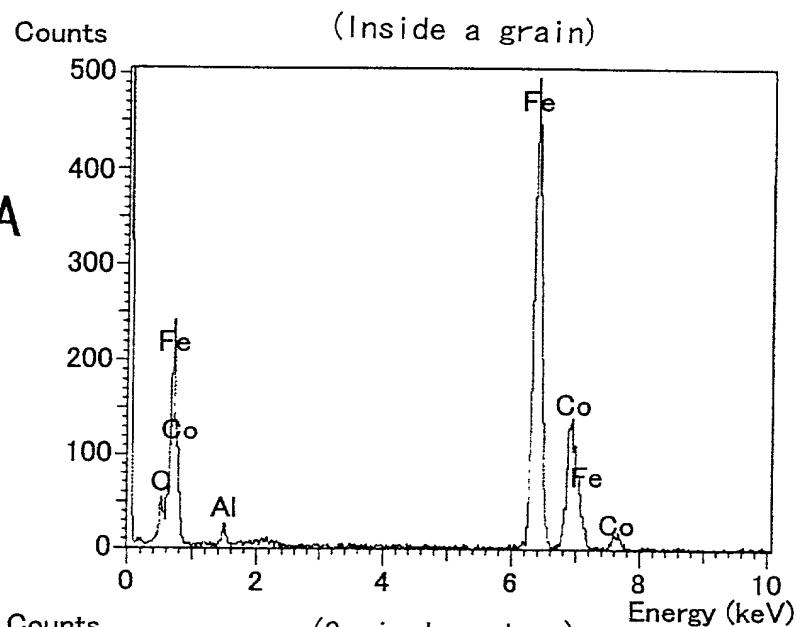


FIG. 9B

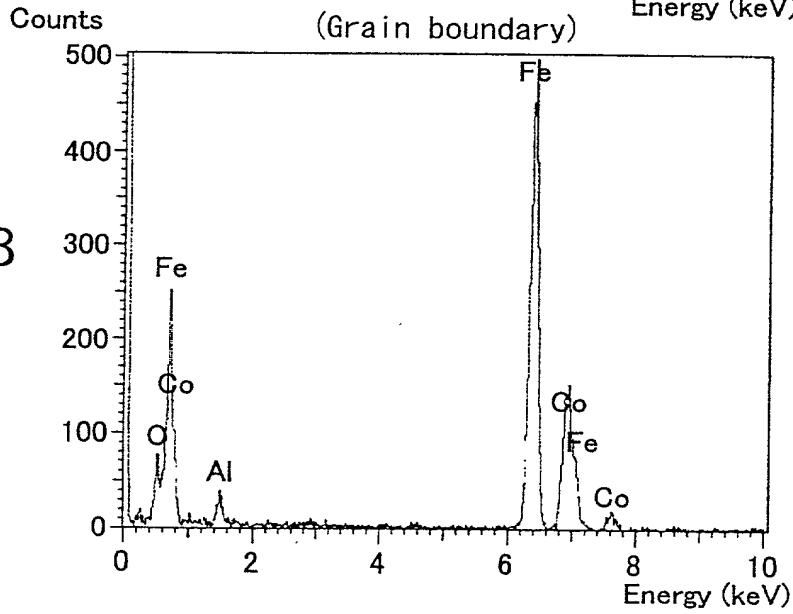


FIG. 10

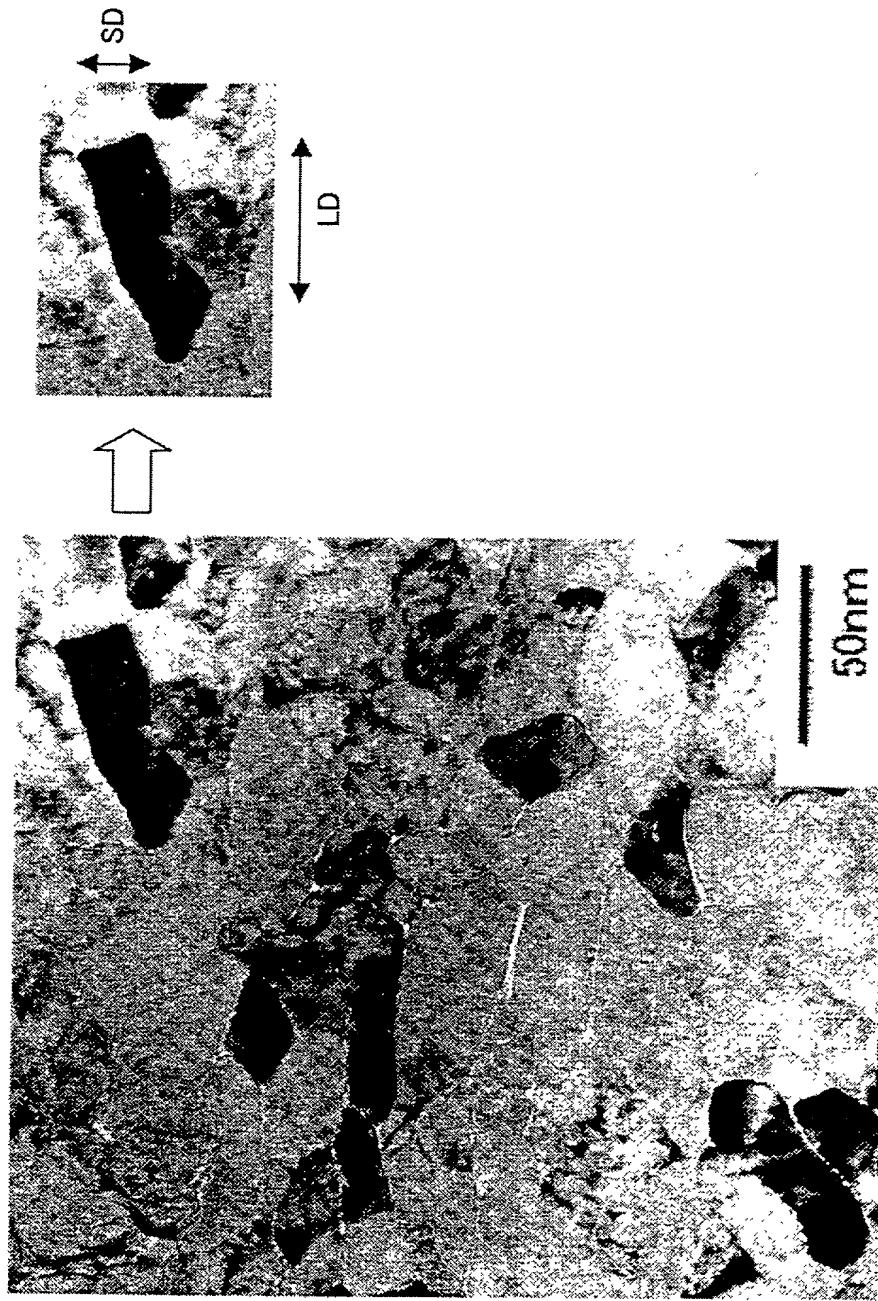
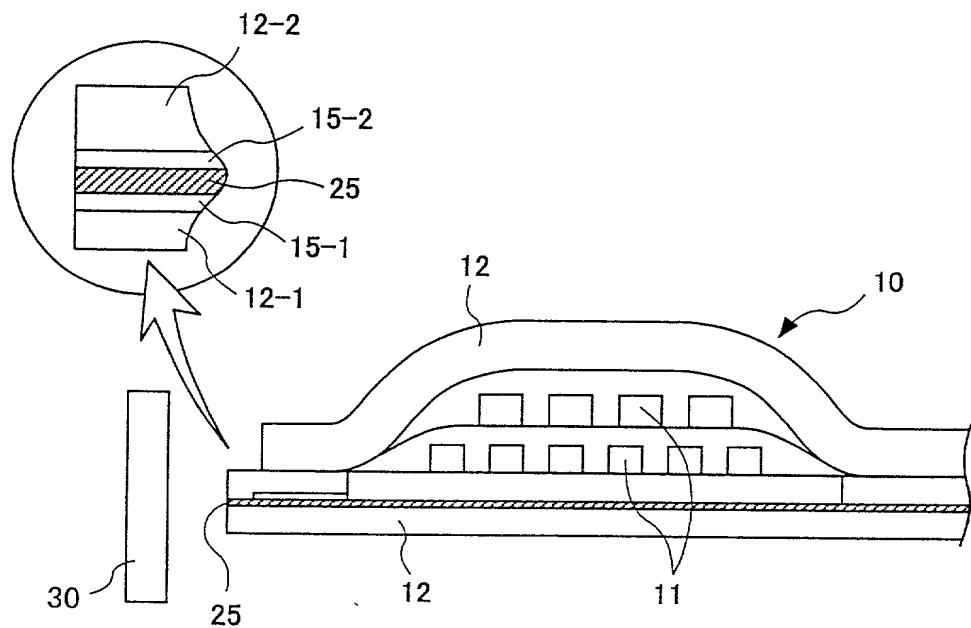


FIG. 11

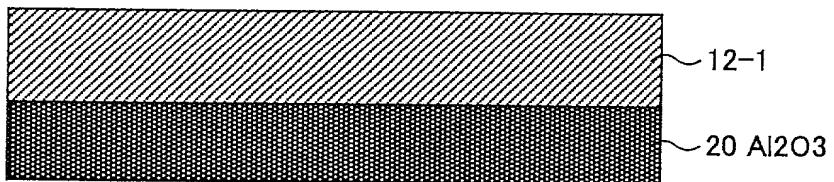
Alloy composition (at%)			Sputtering pressure	Residual stress	Hkh
Fe	Co	Al	(Pa)	σ (10^9 dyne/cm 2)	(Oe)
71.3	18.1	2.5	8.1	0.5	47.1
71.8	18.1	2.3	7.8	0.7	25.5

FIG. 12



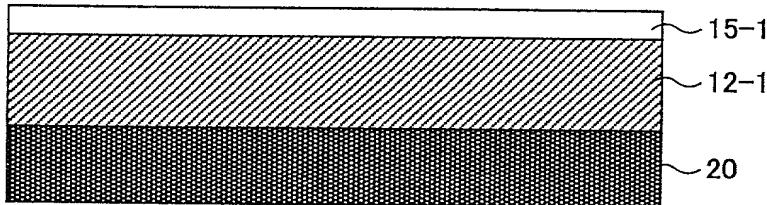
PLATING (NiFe,CoNiFe)

FIG. 13A



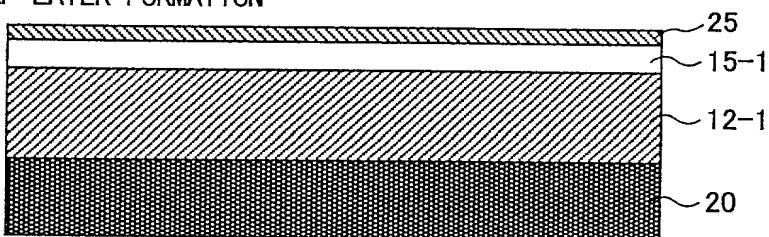
FeCoMo FILM FORMATION BY SPUTTERING

FIG. 13B



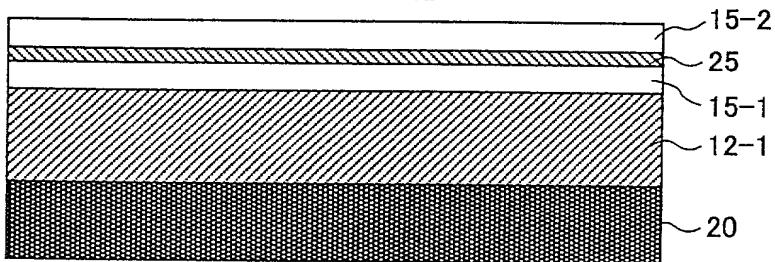
Al₂O₃ GAP LAYER FORMATION

FIG. 13C



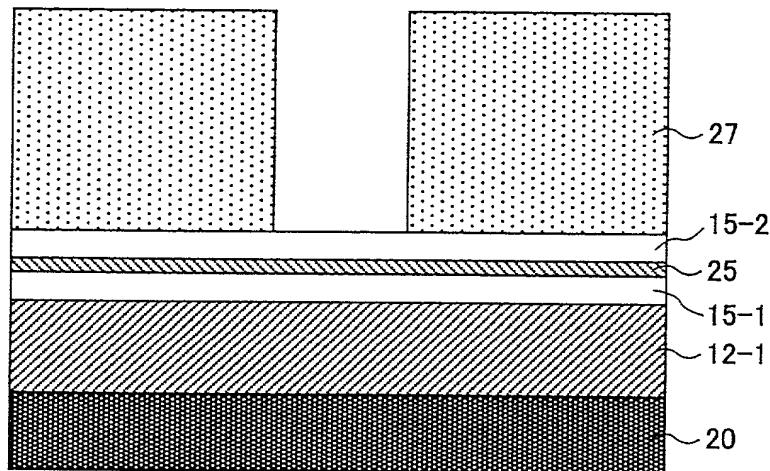
FeCoMo FILM FORMATION BY SPUTTERING

FIG. 13D



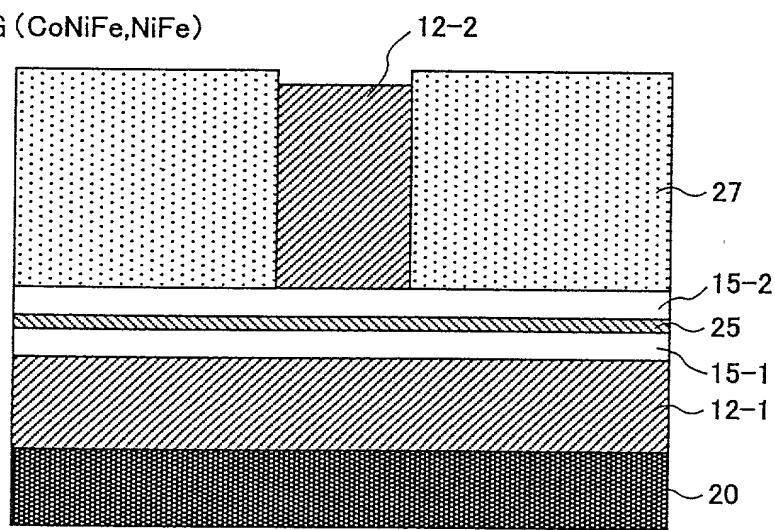
PATTERN FORMATION BY USING A RESIST

FIG. 14A



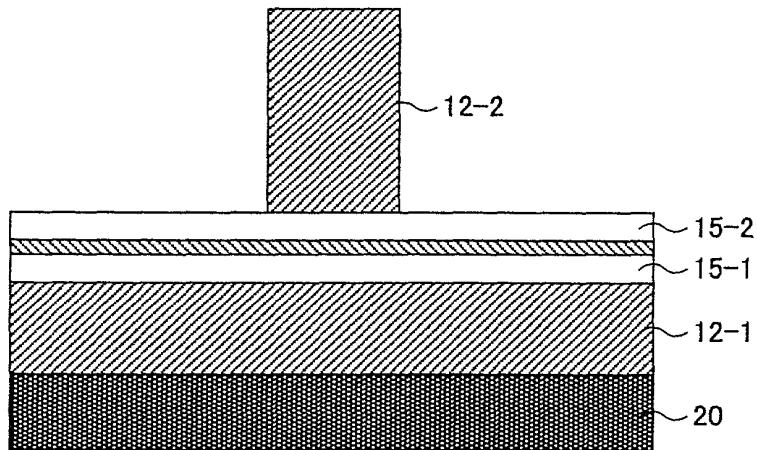
PLATING (CoNiFe,NiFe)

FIG. 14B



REMOVING THE RESIST

FIG. 15A



ETCHING : FORMING AN END-PORTION MAGNETIC POLE

FIG. 15B

